AMENDMENTS TO THE CLAIMS

Please amend Claim 45 and add new claims 60 - 65 as shown below:

1. (Withdrawn) A polypeptide fragment capable of raising a specific T-cell response, said fragment comprising a peptide selected from the group consisting of: rlqeertck (SEQ ID NO:245), rlqeertckv (SEQ ID NO:297), qlcpicrapv (SEQ ID NO:298), vleppgardv (SEQ ID NO:301), and functional equivalents having at least 75% sequence identity thereto; wherein said polypeptide fragment comprises at the most 15 amino acids.

2. (Withdrawn) The polypeptide fragment according to claim 1, wherein said functional equivalent comprises either:

- substitutions only in the preferred positions and only to preferred amino acid residues for a given HLA allele as identified in table 2 or,
- at the most 10 amino acids.

3. (Cancelled)

4. (Withdrawn) The polypeptide fragment according to claim 1, wherein the specific T-cell response is measured as more than 50 peptide specific spots per 10^6 cells in an ELISPOT assay performed either:

- without pre-stimulation in vitro or,
- after stimulation in vitro or,
- using PBL from an individual that has not been subjected to immune therapy against a neoplastic disease.

5 – 6. (Cancelled)

7. (Withdrawn) The polypeptide fragment according to claim 1, wherein the polypeptide fragment is characterised by having a C_{50} value, measured as the concentration (μM) of the polypeptide fragment required for half maximal binding to a MHC (Major Histocompatibility Complex) class I molecule, of less than 1000.

8 – 11. (Cancelled)

12. (Withdrawn) A polypeptide fragment according to claim 1, wherein the fragment is capable of activating T-cell growth in vitro.

13. (Cancelled)

14. (Withdrawn) A method of selecting a peptide comprising a fragment of ML-IAP for use in a vaccine composition comprising the steps of:

i) providing an individual who has not been subjected to immune therapy,

ii) providing a polypeptide fragment comprising a peptide consisting of at least 9 consecutive amino acid residues of ML-IAP (SEQ ID NO: 1),

iii) testing specific T-cell responses against fragments of ML-IAP in said individual,

iv) selecting fragments of ML-IAP wherein said T-cell response corresponds to or is better than a predetermined selection criterium.

15. (Withdrawn) The method according to claim 14, wherein said peptide is selected from the group consisting of: rlqeertck (SEQ ID NO:245), qilgqlrpl (SEQ ID NO:55), ltaevppel (SEQ ID NO:100), gmgseelrl (SEQ ID NO:84), elptprrev (SEQ ID NO:200), rlqeertckv (SEQ ID NO:297), qlcpicrapv (SEQ ID NO:298), llrskgrdfv (SEQ ID NO:300), vleppgardv (SEQ ID NO:301), pltaevppel (SEQ ID NO:302), and functional equivalents having at least 75% sequence identity thereto.

16. (Withdrawn) The method according to claim 15, wherein said polypeptide fragment comprises at the most 15 amino acids.

17. (Cancelled)

18. (Withdrawn) The method according to claim 14, wherein said predetermined selection criterium is more than 50 peptide specific spots per 10^6 cells in said ELISPOT assay.

19. (Withdrawn) A medicament for treating a clinical condition in an individual in need thereof, comprising a polypeptide fragment according to claim 1.

20. (Withdrawn) A method of treatment of a clinical condition in an individual in need thereof comprising administering a medicament comprising one or more polypeptide fragments according to claim 1.

21. (Withdrawn) The method according to claim 20, wherein said clinical condition is:

- cancer or,
- malignant melanoma or,
- an auto-immune disease.

22 – 23. (Cancelled)

24. (Withdrawn) The method according to claim 20, wherein at least one of said polypeptide fragments is restricted to an HLA molecule present in said individual.

25 – 26. (Cancelled)

27. (Withdrawn) A vaccine composition comprising at least one isolated polypeptide comprising a at least one peptide selected from the group consisting of: rlqeertck (SEQ ID NO:245), rlqeertckv (SEQ ID NO:297), qlcpicrapv (SEQ ID NO:298), vleppgardv (SEQ ID NO:301), and functional equivalents having at least 75% sequence identity thereto; and a pharmaceutically acceptable carrier and/or adjuvant.

28 – 29. (Cancelled)

30. (Withdrawn) The vaccine composition according to claim 27 comprising an adjuvant, wherein the adjuvant is selected from the group consisting of Montanide IAS-51 and QS-21.

31. (Cancelled)

32. (Withdrawn) The vaccine composition according to claim 27 comprising a carrier, wherein the carrier is a dendritic cell.

33. (Withdrawn) The vaccine compositions according to claim 27, wherein the composition comprises more than one different ML-IAP fragment according to claim 1.

34. (Cancelled)

35. (Withdrawn) The vaccine composition according to claim 33, wherein the composition comprises:

- at least 2 different ML-IAP fragments each capable of associating with a different HLA molecule selected from the group consisting of HLA-A2, HLA-A1, HLA-A3, HLA-A24, HLA-B7, HLA-B27, and HLA-B44 or,
- at least one class I-restricted ML-AIP peptide and at least one class II-restricted ML-IAP peptide.

36. (Cancelled)

37. (Withdrawn) A pharmaceutical composition comprising the vaccine composition according to claim 27 and an anti-cancer medicament.

38. (Cancelled)

39. (Withdrawn) A kit of parts comprising at least one polypeptide comprising ~~a~~ at least one peptide selected from the group consisting of: rlqeertck (SEQ ID NO:245), rlqeertckv (SEQ ID NO:297), qlcpicrapv (SEQ ID NO:298), vleppgardv (SEQ ID NO:301) and functional equivalents having at least 75% sequence identity thereto; and a bioactive compound selected from the group consisting of: a chemotherapeutic agent, an immunotherapeutic agent, and a second cancer vaccine composition.

40. (Cancelled)

41. (Withdrawn) A method for treatment or prophylactic treatment of an individual diagnosed with cancer or at risk of developing a cancer, said method comprising the step of administering to the individual;

- the polypeptide fragment according to ~~claims~~ 1,
- or a vaccine composition comprising at least one isolated polypeptide comprising ~~a~~ at least one peptide selected from the group consisting of rlqeertck (SEQ ID NO:245), rlqeertckv (SEQ ID NO:297), qlcpicrapv (SEQ ID NO:298), vleppgardv (SEQ ID NO:301) and functional equivalents having at least 75% sequence identity thereto; and a pharmaceutically acceptable carrier and/or adjuvant,
- or said vaccine comprising an anti-cancer medicament,
- or a kit of parts comprising at least one polypeptide comprising ~~a~~ at least one peptide selected from the group consisting of rlqeertck (SEQ ID NO:245), rlqeertckv (SEQ ID NO:297), qlcpicrapv (SEQ ID NO:298), vleppgardv (SEQ ID NO:301) and functional equivalents having at least 75% sequence identity thereto; and a bioactive compound selected from the group consisting of a chemotherapeutic agent, an immunotherapeutic agent, and a second cancer vaccine composition.

42 - 44. (Cancelled)

45. (Currently amended) A method for raising a specific T-cell response against an epitope of ML-IAP (SEQ ID NO:1) in an individual, said method comprising the steps of administering to the individual a polypeptide ~~fragment~~ capable of raising a specific T-cell response, said ~~fragment~~ polypeptide comprising a peptide selected from the group consisting of: rlqeertck (SEQ ID NO:245), rlqeertckv (SEQ ID NO:297), qlcpicrapv (SEQ ID NO:298), vleppgardv (SEQ ID NO:301), and functional equivalents having at least 75% sequence identity

thereto; wherein said polypeptide ~~fragment~~ comprises at the most 15 amino acids, and raising a specific T-cell response against an epitope of ML-IAP in the individual.

46. (Cancelled)

47. (Withdrawn) An antibody capable of specific recognition of a polypeptide fragment according to claim 1.

48. (Withdrawn) A method for activating and expanding T-cells specific for ML-IAP or fragments thereof comprising the steps of co-cultivating T-cells and one or more polypeptide fragments according to claim 1.

49. (Withdrawn) The method according to claim 48, wherein the method comprises: generating and loading monocyte-derived dendritic cells (DC) with said polypeptide fragment(s) and co-cultivating said DC and peripheral ~~perifiral~~ blood monocytes (PBMC) comprising T-cells or, generating *Drosophila melanogaster* cells expressing one or more different HLA molecules, loading said *Drosophila melanogaster* cells with said polypeptide fragment(s) and co-cultivating said *Drosophila* cells with peripheral ~~perifiral~~ blood monocytes (PBMC) comprising T-cells or T-cells purified from PBMC.

50. (Cancelled)

51. (Withdrawn) ML-IAP specific T-cells obtained by the method according to claim 48.

52. (Cancelled)

53. (Withdrawn) A method of treatment of a clinical condition in an individual in need thereof, comprising administering a medicament comprising ML-IAP specific T-cells according to claim 51.

54. (Previously presented) The method of Claim 45, wherein said fragment comprises the peptide rlqeertck (SEQ ID NO: 245).

55. (Previously presented) The method of Claim 45, wherein said fragment comprises the peptide rlqeertckv (SEQ ID NO: 297).

56. (Previously presented) The method of Claim 45, wherein said fragment comprises the peptide qlcpicrapv (SEQ ID NO: 298).

57. (Previously presented) The method of Claim 45, wherein said fragment comprises the peptide vleppgardv (SEQ ID NO: 301).

58. (Previously presented) The method of Claim 45, further comprising administering an adjuvant to the individual.

59. (Previously presented) The method of Claim 58, wherein the adjuvant is Montanide IAS-51 or QS-21.

60. (New) The method of claim 45, wherein said polypeptide comprises a peptide selected from the group consisting of: rlqeertck (SEQ ID NO:245), rlqeertckv (SEQ ID NO:297), qlcvicrapv (SEQ ID NO:298) and vleppgardv (SEQ ID NO:301).

61. (New) The method of claim 45, wherein said polypeptide comprises a functional equivalent having at least 75% sequence identity to a peptide selected from the group consisting of: rlqeertck (SEQ ID NO:245), rlqeertckv (SEQ ID NO:297), qlcvicrapv (SEQ ID NO:298) vleppgardv (SEQ ID NO:301), wherein said functional equivalent having at least 75% identity thereto contains one or more conservative amino acid substitutions.

62. (New) The method of claim 45, wherein said polypeptide comprises a functional equivalents having at least 85% sequence identity to a peptide selected from the group consisting of: rlqeertck (SEQ ID NO:245), rlqeertckv (SEQ ID NO:297), qlcvicrapv (SEQ ID NO:298) vleppgardv (SEQ ID NO:301).

63. (New) The method of claim 45, wherein said polypeptide comprises a functional equivalent to a peptide selected from the group consisting of: rlqeertck (SEQ ID NO:245), rlqeertckv (SEQ ID NO:297), qlcvicrapv (SEQ ID NO:298) vleppgardv (SEQ ID NO:301), wherein said functional equivalent has more than one conserved amino acid substitution.

64. (New) The method of claim 45, wherein said polypeptide comprises a functional equivalent to a peptide selected from the group consisting of: rlqeertck (SEQ ID NO:245), rlqeertckv (SEQ ID NO:297), qlcvicrapv (SEQ ID NO:298) vleppgardv (SEQ ID NO:301), wherein said functional equivalent has one conserved amino acid substitution.

65. (New) The method of claim 45, wherein said polypeptide comprises a functional equivalent to a peptide selected from the group consisting of: rlqeertck (SEQ ID NO:245), rlqeertckv (SEQ ID NO:297), qlcvicrapv (SEQ ID NO:298) vleppgardv (SEQ ID NO:301),

wherein said functional equivalent having at least 75% identity thereto is expected to increase or maintain the affinity of said polypeptide for a specific HLA.